



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
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OFFICE OF
AIR AND RADIATION

June 4, 2003

CCD-03-05 (LDV/LDT/HDV)

Dear Manufacturer:

SUBJECT: CFEIS Instructions:

- Automatic Certificate Generation by Manufacturers (ACGM),
- Certification of Clean Fuel Vehicles (CFV),
- New Codes assigned for Complete Heavy Duty Vehicle Certification
- New Field for General Label and CAFE programs

This letter provides guidance for requesting certificates electronically and for entering data for certificates that cover both Tier 2 and Clean Fuel Vehicle standards. It also describes new codes that have been created for Complete Heavy Duty Vehicle Certification and for averaging of fuel economy test results for General Label and CAFE.

Automatic Certificate Generation by Manufacturers (ACGM)

We are now ready to implement the final phase of this project. We have been providing electronic certificates via e-mail for some time. This final phase permits manufacturers who meet the qualifying criteria to generate a certificate of conformity. This process places the burden upon manufacturers to assure the accuracy of the data they have input into CFEIS. Instructions on how to request a certificate as well as instructions for unlocking, revising and locking a certificate are contained in Enclosure I. A list of current applicable sales area codes is included in Enclosure II.

Clean Fuel Vehicle Certification

Enclosure III contains simplified data entry steps to follow to display the CFV standards on the EPA certificate of conformity for vehicles certified to Tier 2 and CFV standards.

Heavy-duty Vehicle Certification

New data codes that have been designated for Federal Complete Heavy Duty and California LEV II vehicle data entry are described in Enclosure IV.

General Label and CAFE new field

Enclosure V provides a description of a new field added to the General Label and CAFE programs to specify the type of averaging to be performed when vehicles are equipped with a shift indicator light or semi-automatic transmission.

The new fields and codes described in the enclosures will be incorporated shortly into the CFEIS Manufacturers User Guide (CMUG) which is available at <http://www.epa.gov/otaq/cmug.htm> .
If you have any questions about this letter, please contact your certification team representative.

Sincerely,

Handwritten signature of Daniel C. Hansen in black ink, followed by the text "/FOR".

Gregory A. Green, Director
Certification and Compliance Division
Office of Transportation and Air Quality

Attachments

Enclosure I

Automatic Certificate Generation by Manufacturers (ACGM)

Manufacturers can now request a certificate by submitting an extended version of the current Summary Sheet input format. The ACGM/Summary Sheet record format is attached at the end of this enclosure.

Before submitting a request for a certificate using the ACGM program, the following items should be checked out thoroughly:

1. Summary Sheet report must have all the necessary test results and correct sales area combinations (sales areas are displayed on the first page of the Summary Sheet report). A detailed listing of sales areas combinations that are applicable for the 2004 and later model years is included in Enclosure II.
2. The required certification application PDF files have been submitted and successfully processed into CFEIS.
3. If the test group/evaporative family is pending EPA confirmatory testing and a conditional certificate is desired, the "CAP2000 Conditional Certificate" code in column 58 on the "X1" Summary Sheet record must have been set to "1".
4. Answers to the following questions are all affirmative:
 - (a) Do all the tested vehicles meet all the applicable standards?
 - (b) Does this test group/evaporative family comply with all the applicable requirements of 40 CFR Parts 85 and 86?
 - (c) Has the OBD system for this test group/evaporative family been approved by EPA or CARB?
 - (d) Has the safety of the ORVR system for this evaporative/refueling family been approved by EPA?
 - (e) Are the vehicles covered in this test group/evaporative family free of defeat devices or strategies?
 - (f) Have the full amount of the applicable certification fees been paid for this test group?
 - (g) If this is a California-only test group, have you received the applicable CARB executive order? [Enter "Y" for non-California-only certificates also]

Generating a New Certificate

To process requests for certificates, new process codes have been added to the process code field of the "X1" ACGM/Summary Sheet record input layout and a new record type "XA" has been added for manufacturers to respond to the above mentioned questions and to enter the California Executive Order number for California-only certificates.

An ACGM certificate request transaction consists of X1, XA and ZZ records. The X1 records identify the specific certificate that is to be issued. The process code on the X1 record should be 'G'

for generate certificate. The XA records establish that this certificate is eligible to be issued using the ACGM process.

If the ACGM request is denied, the denial reason will be stated in the batch processing report (summary.out) that is sent to the manufacturer's electronic mail box. If the request is denied for auditing reasons, the EPA certification team representative will generate the certificate upon completion of the audit.

After a certificate is generated, it is printed on a dedicated CCD certificate printer and signed by the CCD division director. A scanned copy of the signed certificate will be sent to the manufacturer-specified certificate e-mail account. Once generated, a certificate is automatically "locked" to prevent changes to the certification information in CFEIS.

Unlocking a Certificate to Change/Update Supporting Information

After a certificate has been issued, if it is necessary to update any information associated with that certificate, the certificate must first be unlocked in CFEIS. With the new ACGM process, manufacturers can unlock a certificate by submitting a Summary Sheet transaction consisting of "X1" and "ZZ" records. The process code on the X1 record should be "U" in order to unlock a certificate.

Generating a Revised a Certificate

A revised certificate must be generated any time there has been a change to any of the information that is displayed on the certificate. A revised certificate can be requested by submitting a transaction of "X1", "XA" and "ZZ" records. The process code on the X1 record should be "V" to issue a revised certificate. The ACGM program will automatically re-lock the certificate any time a revised certificate is issued.

Re-Locking a Certificate If A Revised Certificate Is Not Needed

After changes or updates have been made to information associated with a certificate which do not require a revised certificate to be issued, the certificate must be re-locked by the manufacturer. An unlocked certificate is re-locked by submitting completed "X1" and "ZZ" records. The process code on the X1 record should be "L" to re-lock a certificate.

Changing the CAP 2000 Conditional Status of A Certificate

If an original certificate is issued conditionally (because the test group/evaporative family was pending completion of EPA confirmatory testing), the manufacturer must update the summary sheet once all required testing has been completed. The certificate must first be unlocked so that the summary sheet can be modified to include all required test results. The "CAP 2000 Conditional Certificate Status" code in column 58 on the "X1" summary sheet record must also be changed to "2" indicating that all conditions for that certificate have been met. The process code on the "X1" record should be "C" for "update conditional certificate code". The software will automatically re-lock the certificate after the conditional certificate code has been changed to 2.

ACGM/Summary Sheet Input Data Record Layout

Transaction Type								
Field Name	Record Type	Generate Certificate	Unlock/Lock Certificate	Revise Certificate	Position	Length	Data Type	Valid Range/Entry Criteria
Input Record Type	X1	R	R	R	1-2	2	A	X1
Process Code	X1	R	R	R	3-3	1	A	To Generate Certificate: 'G' To Unlock Certificate: 'U' To Lock Certificate: 'L' To Revise Certificate: 'V'
Manufacturer Code	X1	R	R	R	4-7	4	I	Valid MANUFACTURER CODE
Engine Family / Test Group Name	X1	R	R	R	9-20	12	A	Valid ENGINE FAMILY/TEST GROUP NAME
Engine System Number	X1				22-23	2	I	<i>Note:</i> Default is '01'. Leave it blank to default
Summary Sheet Index Number	X1	R	R	R	25-33	9	A	Valid SUMMARY SHEET INDEX Number

Field Name	Record Type	Transaction Type			Position	Length	Data Type	Valid Range/Entry Criteria
		Generate Certificate	Unlock/Lock Certificate	Revise Certificate				
Input Record Type	XA	R	R	R	1-2	2	A	XA
question# 1	XA	R		R	5	1	A	'Y' or 'N' : Answers to all the questions must be 'Y' for a certificate to be generated.
question# 2	XA	R		R	7	1	A	'Y' - Yes 'N' - No
question# 3	XA	R		R	9	1	A	'Y' - Yes 'N' - No
question# 4	XA	R		R	11	1	A	'Y' - Yes 'N' - No
question# 5	XA	R		R	13	1	A	'Y' - Yes 'N' - No
question# 6	XA	R		R	15	1	A	'Y' - Yes 'N' - No
question# 7	XA	R		R	17	1	A	'Y' - Yes/NA 'N' - No
California Executive Order Number	XA	X		X	19-33	15	A	The California Executive Order Number must be entered in this field for all California-only certificates.
EOT Input Record Type	ZZ	R	R	R	1-2	2	A	ZZ - End of Transaction

1. Do all the tested vehicles meet all the applicable standards?
2. Does this test group/evaporative family comply with all the applicable requirements of 40 CFR Parts 85 and 86?
3. Has the OBD system for this test group/evaporative family been approved by EPA or CARB?
4. Has the safety of the ORVR system for this evaporative/refueling family been approved by EPA?
5. Are the vehicles covered in this test group/evaporative family free of defeat devices or strategies?
6. Have the full amount of the applicable certification fees been paid for this test group?
7. If this is a California-only test group, have you received the applicable CARB executive order?
[Enter "Y" for non-California-only certificates also]

CAP 2000 Conditional Certificate Status on the Summary Sheet:

Field Name	Transaction Type							P o s i t i o n	L e n g t h	D a t a T y p e	Valid Range/Entry Criteria
	R e c o r d T y p e	A d d	R e p l a c e	D e l e t e	R e p o r t	R e p r o c e s s	U p d a t e				
Process Code	X1	R	R	R	R	R	R	3-3	1	A	<p><i>Note:</i> 'C' is to update conditional certificate code to 2.</p> <p>For Add: 'A' or blank - ''</p> <p>For Replace: 'R'</p> <p>For Delete: 'D'</p> <p>For Report: 'P'</p> <p>For Reprocess: 'S'</p> <p>For Update: 'C' (To be used only after SS has been updated with EPA confirmatory tests subsequent to conditional certificate issuance.</p> <p>"CAP2000 Conditional Certificate" code 2 is to be used with this process code.</p>
CAP2000 Conditional Certificate Status	X1	X	X				R	58	1	1	<p>1 - EPA Confirmatory Testing is pending (valid for process code of 'A', blank or 'R') Should only be used if an EPA test waiver request has been submitted to EPA and EPA selected the vehicle for EPA confirmatory testing and the mfr. has an urgent need for the certificate prior to the completion of EPA testing - . ref. 40CFR 86.1835(d).</p> <p>After confirmatory test has been completed, the Summary Sheet should be updated with the EPA test numbers. When the update is complete, this code should be changed to '2' by entering an 'X1' record with the process code 'C' and a 'ZZ' record. (ref. Dear Mfr. Letter VPCD-99-17, page 7).</p> <p>2 - Confirmatory Test completed and entered. This code should be used with the process code 'C'.</p>

Enclosure II

Model Year 2004 Valid Sales Area Combinations

Valid combinations of sales areas that apply to certificates with Tier 2 standards are:

Sales Area Code	Sales Area Description	Certification Program(s)	Comments
FA	Federal	Tier 2 or Interim non-Tier 2	Any Tier 2 bin
FA/CA	Federal & California	Tier 2 or Interim non-Tier 2	Non-Identical Standards between Federal and California
FC	Federal & California	(Tier 2 or Interim non-Tier 2) & California	Identical Standards for Federal and California
FA/CF/CA	Clean Fuel Vehicle, California, and Federal	(Tier 2 or Interim non-Tier 2), Clean Fuel Vehicle, & California	Non-Identical Standards between Clean Fuel Vehicle, Federal and California
FC/CF	Clean Fuel Vehicle, Federal and California	(Tier 2 or Interim non-Tier 2), Clean Fuel Vehicle, & California	Identical Standards for Federal and California with non-identical Clean Fuel Vehicle standards
FA/CF	Clean Fuel Vehicle and Federal	(Tier 2 or Interim non-Tier 2) & Clean Fuel Vehicle	Non-Identical Standards between Clean Fuel Vehicle and Federal

The following sales areas are obsolete for 2004 and later model years:

- FA/NL - (Federal Tier 2 or Interim non-Tier 2) and NLEV
- FA/NL/CA - (Federal Tier 2 or Interim non-Tier 2), NLEV and California
- FA/CL - (Federal Tier 2 or Interim non-Tier 2) and (NLEV and California)
- FC/NL - (Federal/California Tier 2 or Interim non-Tier 2) and NLEV
- FA/NL/CF - (Federal Tier 2 or Interim non-Tier 2), NLEV and Clean Fuel Vehicle
- FA/NL/CF/CA - (Federal Tier 2 or Interim non-Tier 2), NLEV, Clean Fuel Vehicle and California
- FA/CL/CF - (Federal Tier 2 or Interim non-Tier 2), (NLEV and California with the same standards) and Clean Fuel Vehicle

- FC/NL/CF - (Federal Tier 2 or Interim non-Tier 2), NLEV and Clean Fuel Vehicle
- FA/NF - (Federal Tier 2 or Interim non-Tier 2) and (NLEV, California and Clean Fuel Vehicle with the same standards)

Valid combinations of sales areas that apply to certificates without Tier 2 standards are:

Sales Area Code	Sales Area Description	Certification Program(s)	Comments
FA	Federal	Federal Tier 1 or Heavy Duty complete vehicle	
FA/CA	Federal & California	(Federal Tier 1 or Heavy Duty Complete Vehicle) and California	Non-Identical Standards between Federal and California
CA	California-Only	California	
CF	Clean Fuel Vehicle	Clean Fuel Vehicle	
CF/CA	Clean Fuel Vehicle and California	Clean Fuel Vehicle and California	Non-Identical Standards between Clean Fuel Vehicle and California

The following sales areas are obsolete for 2004 and later model years

- NL - NLEV
- NL/CA - NLEV and California
- CL - NLEV and California with the same standards
- NL/CF - NLEV and Clean Fuel Vehicle
- NL/CF/CA - NLEV ,Clean Fuel Vehicle and California
- NF - NLEV, Clean Fuel Vehicle and California with the same standards

Enclosure III

Simplified Data Submission to display Clean Fuel Vehicle Standards on the Certificate

Currently some manufacturers certifying to Tier 2 standards are entering separate emission standards data for all the emission components for the Clean Fuel Vehicle (CFV) sales area even when the Tier 2 standards are more stringent than those of the Clean Fuel Vehicle standards. EPA's software requires part of the Clean Fuel Vehicle data to be entered in CFEIS in order for the CFV-related information to be displayed on the certificate. However, manufacturers have requested a simplified process for test groups meeting Tier 2 standards that are more stringent than CFV standards. This simplified process, described below, no longer requires all of the Clean Fuel Vehicle related information to be entered into CFEIS. (Note: The following steps do not apply to test groups with the NF sales area code.)

1. ESI: Enter all applicable subsystems including one subsystem for the CFV sales area. One emission standard "EG" record for "CO" emissions for full useful life miles should be entered for the CFV subsystem (enter two EG records if two emission standard levels need to be displayed on the certificate, e.g., LEV & ILEV).
2. VI: Enter the sales area code 'CF' in the vehicle data record (V4) in addition to other sales areas that apply to the test group.
3. Summary Sheet:
Enter all the model type "X2" records for the CFV sales area in addition to other model type records that may apply to other sales areas.

Enter the following comment in the Summary Sheet comment field:
"This test group meets Clean Fuel Vehicle [xxxx] standards."

Note- [xxxx] should be replaced with one of the following emission standard levels:

ULEV;
LEV;
ULEV, ILEV; or
LEV, ILEV.

ENCLOSURE IV

ESI CFEIS Codes for Federal Complete Heavy Duty Vehicle and California LEV II Standards

The new codes are indicated in **BOLD** print.

Test Group Name

The character "K" has been designated as the "Family Type"(5th character of the test group name) code for Heavy Duty Chassis test groups.

Example: 4TSX**K**06.0ABC

All of the following codes are listed in the Appendix D of the CMUG (CFEIS Manufacturers' User Guide) currently on the EPA's web site <http://www.epa.gov/otaq/cmug.htm>.

Vehicle Class Code (column 56-57 on E2 record)

H1 - Federal Heavy Duty Chassis GVWR 8501-10000

H2 - Federal Heavy Duty Chassis GVWR 10001-14000

M6 - California LEV II MDV GVWR 8501-10000

M7 - California LEV II MDV GVWR 10000-14000

Although the California LEV II program has a single set of standards for LDTs \leq 8500 lbs GVW, manufacturers should continue using the following vehicle class codes applicable to the LEV I program to facilitate identification of SFTP standards:

T1 - LDT1 0-3750 lbs LVW

T2 - LDT2 3751-5750 lbs LVW

M2 - MDV 3751-5750 lbs ALVW

M3 - MDV 5751-8500 lbs ALVW

Transaction Type													
Field Name	R e c o r d T y p e	A d d	M o d i f y	R e p l a c e	D e l e t e	R e p o r t	C a n c e l	R e a c t i v a t e	P o s i t i o n	L e n g t h	D a t a T y p e	Valid Range/Entry Criteria	
Vehicle Class	E2	R		R					56-57	2	A	Federal Only: T3 - LDT3 (ALVW 3751-5750, LVW 0-3750, GVW > 6000) T5 - LDT3 (ALVW 3751-5750, LVW > 3750, GVW > 6000) T4 - LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000) T6 - LDT4 (ALVW > 5750, LVW > 3750, GVW > 6000) MD - MDPV (Federal Tier 2, GVWR 8501-10000) H1 - HDV1 (Federal HD Chassis GVW 8501-10000) H2 - HDV2 (Federal HD Chassis GVW 10001-14000) Federal and California: V - LDV T1 - LDT1 (LVW <3750, GVW 0-6000)) T2 - LDT2 (LVW 3751-5750, GVW 0-6000) VT - LDV and LDT1 California Only: M2 - MDV2 (ALVW 3751-5750, GVW > 6000) M3 - MDV3 (ALVW 5751-8500, GVW > 6000) M4 - MDV4 (ALVW 8501-10000, GVW > 6000) M5 - MDV5 (ALVW 10001-14000, GVW > 6000) M6 - MDV6 (Cal. LEV 2 MDV GVW 8501-10000) M7 - MDV7 (Cal. LEV 2 MDV GVW 10001-14000)	

GVW Category (column 49-54 on E2 record)

FHDV1 - Federal Heavy Duty Chassis GVWR 8501-10000

FHDV2 - Federal Heavy Duty Chassis GVWR 10001-14000

CLDT - California LDT GVWR ≤8500

MDV6 - California MDV GVWR 8501 - 10000

MDV7 - California MDV GVWR 10001 - 14000

Field Name	Transaction Type								P o s i t i o n	L e n g t h	D a t a T y p e	Valid Range/Entry Criteria
	R e c o r d T y p e	A d d	M o d i f y	R e p l a c e	D e l e t e	R e p o r t	C a n c e l	R e a c t i v a t e				
GVW Category	E2	R		R					49-54	6	A	FHLDT - Heavy Light Duty Truck FLDV - Light Duty Vehicle FLLDT - Light Light Duty Truck FLDT - Light Duty Truck CLDV - California Light Duty Vehicle CLDT - California Light Duty Truck GVWR <8501 MDV - California Medium Duty Vehicle FLDV - LDV/LDT1 CLDT - California LDV/LDT1 MDPV - Medium Duty Passenger Vehicles FAT - Federal Light Duty Vehicle or Truck CUT - California Light Duty Vehicle or Truck FHDV1 - Federal Heavy Duty Chassis GVWR 8501-10000 FHDV2 - Federal Heavy Duty Chassis GVWR 10001-14000 MDV6 - California MDV, GVWR 8501-10000 MDV7 - California MDV, GVWR 10001-14000

Emissions Tier (column 11-14 on EG record)

LDV - Federal Heavy Duty Chassis Standards

L2 - LEV-II LEV (California LEV-II LEV Standards)

L20- LEV-II LEV Option 1 (California LEV-II LEV Option 1 Standards)

U2 - LEV-II ULEV (California LEV-II ULEV Standards)

S2 - LEV-II ULEV (California LEV-II ULEV Standards)

Field Name	Record Type	Transaction Type							Position	Length	Data Type	Valid Range/Entry Criteria
		Add	Modify	Replace	Delete	Repair	Cancel	Reactivate				
Tier/Standards	EG	R	R	R	R				11-14	4	A	T0 - Tier 0 T1 - Tier 1 ILEV - Inherently Low Emission Vehicle (Can only be used with CF Sales Area Code in the E2 Record, Position 28-29) LEV - California only - Transitional Low Emission Vehicle - LEV-I Standards LEV - Low Emission Vehicle - LEV-I Standards ULEV - Ultra Low Emission Vehicle - LEV-I Standards SLEV - Super Ultra Low Emission Vehicle - LEV-I Standards ZEV - Zero Emission Vehicle N/A - Not Applicable B1 - Bin 1 (Federal Tier 2 or Interim Non-Tier 2 Bin 1 Standards) B2 - Bin 2 (Federal Tier 2 or Interim Non-Tier 2 Bin 2 Standards) B3 - Bin 3 (Federal Tier 2 or Interim Non-Tier 2 Bin 3 Standards) B4 - Bin 4 (Federal Tier 2 or Interim Non-Tier 2 Bin 4 Standards) B5 - Bin 5 (Federal Tier 2 or Interim Non-Tier 2 Bin 5 Standards) B6 - Bin 6 (Federal Tier 2 or Interim Non-Tier 2 Bin 6 Standards) B7 - Bin 7 (Federal Tier 2 or Interim Non-Tier 2 Bin 7 Standards) B8 - Bin 8 (Federal Tier 2 or Interim Non-Tier 2 Bin 8 Standards) B9 - Bin 9 (Federal Tier 2 or Interim Non-Tier 2 Bin 9 Standards) B10 - Bin 10 (Federal Tier 2 or Interim Non-Tier 2 Bin 10 Standards) B11 - Bin 11 (Federal Tier 2 or Interim Non-Tier 2 Bin 11 Standards) L2 - LEV-II LEV (California LEV-II LEV Standards) L20 - LEV-II Opt 1 (California LEV-II LEV/Option 1 Standards) U2 - LEV-II ULEV (California LEV-II ULEV Standards) S2 - LEV-II SULEV (California LEV-II SULEV Standards) HDV - Federal Heavy Duty Chassis Standards

Summary Sheet

A new code "HDV" is created for the "Vehicle Type Indicator Code" (column 54-56 on the X1 record).

Field Name	R e c o r d T y p e	Transaction Type						P o s i t i o n	L e n g t h	D a t a T y p e	Valid Range/Entry Criteria
		A d d	R e p l a c e	D e l e t e	R e p o r t	R e p r o c e s s	U p d a t e				
Vehicle Type Indicator Code for Summary Sheet	X1	R	R			R		54-56	3	A	LDV - Light Duty Vehicles only. (For this Summary Sheet.) LDT - Light Duty Trucks only. (For this Summary Sheet.) LVT - Both LDVs and LDT1s listed on this Summary Sheet. HDV - Complete Heavy Duty Vehicle (Chassis).

Enclosure V

"Averaging Method" field for the General Label and CAFE data submission

A new field named "Averaging Method" has been added in column 11 of the GT and FT record of the General Label and CAFE sections respectively. It was created to enable manufacturers to specify whether the averaging of multiple test results should be arithmetically weighted or harmonically weighted.

Field Name	Record Type	Transaction Type					Position	Length	Data Type	Valid Range/Entry Criteria
		Add	Replace	Delete	Reprocess					
Averaging Method	GT	X	X				11	1	A	'W' - Simple Weighting $\sum_{i=1}^n (FET_i \times WTi)$ 'H' - Harmonic Weighting $1/\sum_{i=1}^n (WTi/FET_i)$ where WTi = Weight FET _i = MPG of test or vehicle configuration

Field Name	Record Type	Transaction Type					Position	Length	Data Type	Valid Range/Entry Criteria
		Add	Replace	Delete	Reprocess					
Averaging Method	FT	X	X				11	1	A	'W' - Simple Weighting $\sum_{i=1}^n (FET_i \times WTi)$ 'H' - Harmonic Weighting $1/\sum_{i=1}^n (WTi/FET_i)$ where WTi = Weight FET _i = MPG of test or vehicle configuration

For vehicles with SIL, the fuel economy results are to be arithmetically weighted between SIL and non-SIL tests.

The code "W" should be entered in column 11 of all the GT/FT records that have the same "Averaging Group Indicator" code (GT/FT, column 13).

For vehicles with multimode transmissions, the tests are to be harmonically weighted among tests conducted in different modes.

All the GT/FT records that have the same "Averaging Group Indicator" code (GT/FT, column 13) should have the column 11 filled with the code "H".